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MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : MILITARY THOUGHT: "The Suitability of Modern Means and Methods in the Conduct of Operations", by Major General I. Zavyalov

1. Enclosed is a verbatim translation of an article which appeared in the TOP SECRET Special Collection of Articles of the Journal "Military Thought" ("Voyennaya Mysl") published by the Ministry of Defense, USSR, and distributed down to the level of Army Commander.

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FOR THE DEPUTY DIRECTOR, PLANS:

Richard Helms

RICHARD HELMS

Enclosure

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The Suitability of Modern Means and Methods in the Conduct of Operations

by

Major-General I. Zavyalov

In all armies, the essence of the development of military art has consisted, at all stages, of researching into and of developing methods of conducting combat operations which will ensure the most effective use of the weapons available.

This task acquires particular urgency during periods when a weapon of a completely new principle is appearing which has higher combat characteristics and which calls for completely new methods in the conduct of combat operations. Such a situation has been created today by the introduction of nuclear weapons into the armament of armies.

We must recognize that if a great leap was made in a short period of time in the development of modern means of armed combat and especially of nuclear weapons, there are still many very complicated and unresolved problems in the research into and the development of methods for the conduct of combat operations.

It stands to reason that new methods of conducting armed combat must be built not on the conjectures and fantasies of individuals or on their good intentions but on a real foundation; on the material resources for war which the State and its armed forces possess with regard to the quality and quantity of the new weapons and to the other military equipment which is already available or which can be produced by the State for the conduct of a war and, also, with regard to the forces and potential of the probable enemy. Obliviousness to these requirements during research on and the development of new methods of conducting armed combat will lead inevitably to serious mistakes in the theory of military art and to adventurism in the conduct of war, as was the case, for example, with Germany in the two World Wars.

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At the same time, the theory of military art must not become simply a registrar of practical achievements. In studying and summarizing the experience of troops and the results achieved in the development of means and methods in the conduct of armed combat, military theory, like every other advanced scientific theory, must light the way for practice, must provide decisive influence on the structure of armed forces / a few words missing / -----means and methods of conducting a war. To perform a task, one must have a clear perspective before one and one must look far ahead.

Under modern conditions, military art, in theory and practice, must not go so far as to base its calculations on the idea that the entire military-political and strategic aims of a war can be attained solely with the aid of nuclear/missile weapons. This will lead to narrow mindedness in military theory, to one-sidedness in the preparation of the armed forces and in the final analysis, to the inability of the latter to perform combat tasks in the complicated situations of a future war. It should not be forgotten that nuclear weapons are, after all, a complex, expensive, and, in the quantitative sense, a limited means of armed combat. This situation obliges us to seek and to create such new methods of conducting combat operations as will ensure the most effective use of the vast combat capabilities of nuclear weapons in the first place and, with this, of the conventional means of armed combat.

Large qualitative changes have occurred in the development of nuclear weapons. They have been widely introduced in all types of armed forces and have become the basic means of armed combat. The aircraft, as the basic carrier of nuclear weapons, has yielded its place to the missile. At present, the nuclear/missile weapon has attained a level of development which has called into being a new type of armed forces - missile troops of strategic designation to whom the main role in a future war has been assigned. Thus, the nuclear weapon has already ceased to be just a means for the independent fulfillment of combat missions on any scale.

It is no longer possible to limit oneself solely to adapting the old methods for the conduct of combat operations to the new weapons.

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A bold, radical break is needed in this matter, so that the use of nuclear weapons becomes the basis of everything. This break must not be indiscriminate, needlessly disclaiming all previous experience, but reasonable.

However, we do not always take into account the changes which have taken place, and even now the mere renovation of past experience in tactical and in operational art and the adaptation of antiquated methods of conducting armed combat to the new weapons continue to persist. We will attempt to show this, using as an example the solutions of some of the questions of the preparation and conduct of modern offensive operations.

Conditions of the Preparation of an Offensive Operation

As is generally known, any offensive operation is restricted in time and space which are, in turn, determined primarily by the supply of material and technical equipment and by the moral and physical capabilities of the troops. In the past war, after the conclusion of a normal offensive operation and the performance of the assigned tasks, the troops halted, put themselves in order, and consolidated themselves along the lines which they had reached. This occurred most frequently while the defending enemy, having brought up fresh reserves, was strengthening his resistance and when the advancing troops were exploiting their offensive possibilities completely.

As a result, an operational lull of varying duration occurred, during which both sides prepared for new operations. Such an operational lull, during which preparations for a new offensive were carried out or the troops prepared for defense, was characteristic of past wars. However, even now, one comes across attempts to transfer this experience mechanically to modern conditions although such operations are no longer in keeping with the new means of armed combat.

In speaking of the first operations of the initial period of a war, one must assume that these will be primarily nuclear/missile

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operations, directed at the complete destruction of the enemy. It is beyond any doubt that both sides, even during peacetime, will attempt to discover and to study all of each others most important targets and particularly those such as missile sites, nuclear weapons storage sites, and military-industrial and political centers. The opponents will estimate and prepare the quantity of nuclear weapons needed for the annihilation of these targets and will take every measure required to accomplish the tasks of the war with the first massive salvos of nuclear/missiles, using fixed launch sites (statsionarnaya pozitsiya) already prepared in peacetime, and missile submarines and aviation.

In the course of such shattering blows or after their delivery, if the goals of the war have not been attained, the ground troops, who will develop offensive operations aimed at the consolidation of the results achieved and at completing the destruction of the enemy, will go into action.

Under these conditions, as a rule, the transition from one operation to another will take place without any operational lull since the preparation for a new operation will have to be accomplished while the offensive is developing. Even in cases when such a lull does occur, it will be far shorter in duration than those of the last war and will differ significantly from these in accordance with the character of the combat operations. It is surely quite evident that, with the powerful long-range means of destruction at their disposal, the belligerents will scarcely limit themselves to operations which are purely of a reconnaissance nature or to fighting to improve their positions during the preparatory period of an operation. Therefore, given that the means of nuclear attack are available, both sides will conduct aggressive combat operations even during an operational lull. They will strive to make use of every favorable moment to deliver nuclear/missile strikes, primarily against the enemy's means of nuclear attack, against his approaching reserves and against concentrating groupings of his troops, in order to disrupt the preparation of an offensive long before its beginning or to seriously weaken the enemy and thus to create favorable conditions for the successful execution of a new operation. The strength of such strikes will depend upon the availability of nuclear weapons

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and on the ability of the ground troops to perform the tasks assigned by exploiting the results of nuclear strikes.

Modern means of combat not only permit the allocation and performance of such tasks but also require similar activity in the course of the operation as well as during the operational lull. Furthermore, given a sufficient amount of nuclear weapons, a transition to the offensive is possible even though the troops are not completely ready and although the correlation of the remaining force and weapons is unfavorable. This lack of readiness can be offset by the delivery of preemptive (uprezhdayushchy) nuclear strikes against the enemy which will make it possible to inflict serious losses on him and to change the correlation of forces to our advantage quickly.

Incidentally, too, we still approach the appraisal of the correlation of forces in the old manner: we consider divisions, aircraft, tanks, and guns first of all and often forget that the principal advantage / a few words missing / ----- in the methods of using it, in the skilful employment of these means, even though all this is more difficult to bring out and to evaluate.

Thus, the constitution of the operational lull, if one takes place, will now change completely. It will be characterized by aggressive operations by the troops with decisive goals, owing to the fact that there will apparently be no sharp distinction between the end of one offensive operation and the beginning of another. In order to avoid needless losses during the operational lull, both sides will strive to shorten it as much as possible. As a result, the preparation of a new offensive operation will now take place under different and considerably more complex conditions than was the case during previous wars. Past methodology, in this matter, is dead. However, we must take into account that such operational methods will require high combat readiness on the part of the troops both in the exploitation of the results of their nuclear strikes and in repelling possible enemy strikes.

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The Contents of a Commander's Operational Decision

In the making of decisions on an operation, the tendency which manifests itself most noticeably is that of adapting former methods of operations to new weapons, or alternatively, new weapons to old methods. If we take the operational decisions of the World War II period or of the immediate postwar years before the adoption of nuclear weapons and compare them with modern operational decisions involving the mass employment of nuclear weapons, it is difficult in a number of cases to discover any kind of difference in principle in their content. In both cases, the activities of the combined-arms and tank formations or large units form the basis of the commander's plan for the attainment of the assigned aims of the operations. Dependent upon this, the method of using (or the tasks of) aircraft, artillery, and other means of armed combat for the support and protection of infantry and tank combat operations is determined. Today, such tasks are also given to the means of nuclear assault.

This was correct at the time when there were no nuclear weapons or when their consumption in an operation did not exceed twenty or thirty units, because the main role in the rout of the enemy and in the operation as a whole was played by the tanks and the infantry while nuclear weapons, as well as aircraft, artillery and other means of combat, played a protective role and supported the operations of the infantry and tanks. Now, with the mass employment of nuclear weapons, when they have become the basic and decisive means of destruction, when with nuclear missiles of varying designation one can perform independently any tasks in the destruction of enemy groupings, it is wrong to put these weapons on a par with conventional weapons as used to be done and to decide on the way in which they should be used in accordance with the methods of infantry and tank operations, i. e., it would be wrong to assign them to a protective role, as was done previously.

The activities of those forces and weapons which play the main role in the attainment of the goals of an operation must

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form the conceptual basis of any decision. Under modern conditions operations by missile troops and nuclear/missile strikes on the enemy will form the basis of the troop combat activities designed to fulfil the tasks of an operation and to attain its goals. If the missile troops and nuclear weapons are allotted the main role in an operation, the methods and sequence of use of these missiles must form the basis of the plan, which aims at inflicting decisive destruction on the basic groupings of the enemy. In accordance with and bearing in mind the possible results of nuclear strikes, it is necessary to determine the sequence and methods of operations by the infantry, tanks, and other means of armed combat in order to exploit these results to the fullest for the final destruction of the enemy.

Questions concerning the planning of an operation, which must be based on the use of nuclear weapons, should be resolved in the same fashion. This position provokes objection from no one. However, in practice, during our exercises, the reverse is often done: operations by the infantry and the tanks are made the basis of the plans in these cases, while nuclear weapons are seen as means for their reinforcement and support.

Thus, past experience prevails even in this question.

The selection of the direction of the main strike. As we know, the principal goal of any operation has been and remains the destruction of the enemy. It is for this that operations are organized and conducted. In offensive operations by a front, this goal is attained by the combined efforts of all the forces and weapons called upon to carry it out by the delivery of a series of simultaneous or consecutive strikes on the enemy, most frequently in several directions. One of these strikes is the main one.

In Soviet military art the greatest importance is attached to the selection of the main strike because it is on this that the success of the operation largely depends. The determination of

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the direction of the main strike depends on the goals and tasks of the operation, on the nature of the defense, on the groupings and expected methods of enemy operations, the availability and condition of our troops, the nature of the terrain, and on other conditions. The basic requirements in directing the main strike are, firstly, that the most effective use of the combat capabilities of all forces and weapons called upon for the operation is made in this direction; secondly, that the main strike is aimed at the destruction of the basic enemy grouping and that it is delivered at the most vulnerable and weakest point of his defense where maximum results can be attained with the least losses in short periods; and thirdly, that a concentration of the basic forces and means of the advancing troops is ensured in the direction of the main strike and that their significant superiority over the enemy is established.

To what extent do these requirements correspond to modern conditions for the conduct of operations and to the combat capabilities of nuclear weapons? In order to answer this question, one must take into consideration the fact that the direction of the main strike is always selected in the interests of the most effective use of the basic means of armed combat. Previously, these means, which decided the success of an operation, were infantry, artillery, and tanks. The direction of the main strike was selected in their interests and they formed the basis of the principle of military art -- deliver the main strike on the enemy's weakest and most vulnerable spot. This principle accurately reflected the capabilities of earlier combat weapons.

Why was it necessary to deliver the main strike exactly at the enemy's weakest spot? First of all, because to deliver the main strike directly on the basic grouping of the enemy made it necessary to concentrate a large quantity of forces and weapons in order to establish superiority, involved the advancing troops in heavy casualties, did not ensure high rates of advance and, as a rule, did not lead to the destruction but only to the repulse of the enemy, i. e., the goal of the operation was not achieved. Of no small significance was the fact that the advancing troops did not have the powerful long range means of destruction which

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would have enabled them to inflict decisive destruction on the enemy by strikes carried out throughout his entire tactical and operational defense, to inflict decisive destruction on him, to paralyze the movement of his reserves, and to prohibit an organized withdrawal to occupy new defense lines. The absence of these means could only be compensated for by a rapid breakthrough in the weakest sector of the enemy's defense and by a swift movement (vykhod) to the flanks and rear of his basic forces by powerful strike groupings of the advancing troops, particularly tank, with the simultaneous dropping of airborne troops on the enemy's communications.

Finally, it is necessary to remember that the enemy, who was on the defensive, also lacked long range means with sufficient power to allow him to step up his efforts rapidly in the weakest sectors of his defense, where the advancing troops were breaking through and delivering the main strike. In the majority of cases, this could only be done by maneuvering the reserves or by removing troops from sectors which were not under attack, which took a long time. Profiting by this and possessing superiority in forces and weapons, the advancing troops most often succeeding in breaking through the enemy's defense before he could bring his reserves up into these directions.

Consequently, the delivery of the main strike against the weakest spot of the enemy's defense was dictated by the relatively limited combat capabilities of earlier weapons. It was primarily by breaking through the weakest link in the enemy's defense that the rapid movement of the strike groupings of the advancing troops against the flanks and rear of the basic enemy forces and the task of destroying them as quickly as possible could be achieved.

At the same time, an analysis of many of the operations of past wars, and of World War II in particular, also shows that in a number of cases the main strike was delivered directly against the basic enemy grouping, i. e., against the strongest sector of his defense. This happened particularly in offensive operations conducted in mountains, in deserts, in wooded and marshy areas

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and also during an advance from bases of operations on river lines. But in the process, a multiple superiority over the enemy was always established particularly in weapons for neutralization (sredstvo podavleniya).

Under modern conditions, nuclear weapons alone, without the aid of other means of combat, are able to inflict such losses on the enemy that they can seriously reduce and even completely deprive his basic groupings of combat ability and can thus ensure a correlation of forces advantageous to us. Therefore, in determining the direction of the main strike, it is now necessary to begin by considering the possibilities offered by the most effective use not of the infantry or of the tank, but primarily of the nuclear weapons. Where, against what targets, and for the solution of which tasks would it be most advantageous to employ these weapons? Obviously, in the spot where the most appreciable losses can be inflicted on the enemy, where his system of troop control will be destroyed for a prolonged period, and against those targets which present the greatest danger to the advancing troops and which could prevent the attainment of the goals of the operation. Such targets are the enemy's means for nuclear assault, the basic strongest groupings of his troops and his control centers. The destruction of these targets will lead to a sharp reduction in the enemy's capabilities for the employment of nuclear weapons and to the disorganization of his defense in the most important directions and thus creating advantageous conditions for a swift advance by the infantry and the tanks. The bulk of the means for nuclear attack and the basic efforts of the attacking troops must be directed towards the fulfillment of such tasks.

The use of nuclear weapons against the most important targets of the enemy's defense permits the infliction upon him of such destruction that he will not be in a condition to offer any kind of serious resistance here. The surviving remnants of the enemy's forces and weapons will be paralyzed over a vast area and because of the areas devastated by nuclear strikes, the existing gaps in his defense will increase even more. This will become the weakest spot in the enemy's defense, which the ground troops must boldly

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exploit in order to destroy the enemy completely and to develop the offensive in depth rapidly, without the execution of a complicated maneuver.

The availability at the front of nuclear missiles with a range of up to 600 kilometers now permits the simultaneous delivery of strikes throughout the entire depth of the enemy's operational formation and against his communications and his troop supply bases, thus destroying the stability of his defense and prohibiting troop maneuver, and the provision of supplies. Such strikes will oblige the enemy to use his reserves not to deliver counterstrikes against the advancing troops but to close the breaches formed in his defense and to make up the losses of the first echelon of the defense troops. As a result of the operations indicated above, the necessity for the execution of deep enveloping maneuvers by large groupings of the advancing troops, aimed at gaining the rear of the basic enemy forces and at their subsequent encirclement and destruction, has largely passed. Now this task can be more successfully performed by the rapid advance of strike groupings in the shortest direction after nuclear strikes, with the simultaneous landing of airborne troops in the enemy's rear.

To use nuclear weapons for the penetration of the enemy's weakest defense sectors and for the delivery of strikes against unimportant targets, contradicts the very nature of these weapons and leads to their unproductive expenditure. One must take into account that the defending enemy will also have nuclear weapons and that, if the advancing troops do not inflict decisive destruction on him at the proper time, making use of the whole power of their nuclear weapons, the enemy can forestall them and can wreck the advance with strikes by his own nuclear weapons.

One must also take into account that the concept of "a weak spot in the enemy's defense", in itself, acquires a completely different meaning under modern conditions. The availability to the enemy of nuclear/missiles permits him to carry out a maneuver with nuclear strikes, concentrating them in any sector of the defense.

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Furthermore, the enemy will deliberately leave sectors in his defense uncovered by troops while keeping them covered by nuclear weapons in order to lure the advancing troops into this trap, and then to destroy them with nuclear/missile strikes. Even where the advancing troops are successful in breaking through the weak defense of the enemy, he will be in a position to block the progress of the advance in depth by using the nuclear weapons of his basic grouping. Consequently, sectors weakly protected by enemy troops are no longer necessarily his most vulnerable spots. Under modern conditions, the most vulnerable spots can even be those sectors with the strongest defense, if the enemy is unable to conceal them and to cover them with a sufficient quantity of nuclear weapons. When superiority of nuclear means over the enemy is present, his defense in any direction can be disorganized and weakened [several words missing] ----- for the attainment of the aims of an offensive operation. Properly assigned reconnaissance is necessary in order to prevent nuclear weapons being used against an empty area.

In selecting the direction for the main strike, the nature of the terrain plays a role which is far from unimportant. In the past, terrain was usually selected which best provided for the use and maneuver of large masses of infantry, tanks, and artillery, and for the maintenance of close coordination. It should be said that the suitability of the terrain from the point of view of using all forces and weapons and of the advantageous delineation of the front line often determined the selection of the direction for the main strike, despite the fact that, as a rule, it was here that the enemy set up his strongest defenses.

Under modern conditions, the terrain will also be of great significance in the selection of the main strike direction. However, it is not now necessary to establish powerful groupings of troops in the most accessible section of the terrain for the penetration of a strong defense. The performance of this task is facilitated by the availability of nuclear weapons. The delivery, here, of the main strike through the mass use of nuclear weapons makes it possible to deliver decisive destruction to the defending enemy grouping, to destroy the stability of his defense, to paralyze his reserves, and to develop a swift troop advance in great depth.

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In speaking of the main strike, one cannot pass in-silence over the fact that the demand still persists among us, although with various reservations, for the concentration of the basic forces and weapons in the main strike direction. Under modern conditions this demand is not only unfounded but also conceals within itself the danger of unnecessary losses caused by the enemy's nuclear weapons. Now, it is of primary importance to attain superiority over the enemy in nuclear weapons dispersing them throughout the entire zone of a front's advance. The great ranges of operational-tactical missiles permit nuclear weapons to maneuver their strikes freely and, when necessary, to concentrate these strikes in any direction and in any area, thus exerting a decisive influence in changing the situation to our advantage.

There is, therefore, no need to concentrate large forces of infantry, tanks, and other weapons in the main direction. They, too, should be dispersed throughout the entire zone of the front. However, they should be aimed in advance against those directions where nuclear strikes will be delivered and where they will be operating. The high mobility of tanks and motorized infantry will also permit them to carry out a swift maneuver in any direction if they are supplied with suitable itineraries (marshrut dvizheniya).

Thus, under modern conditions, the concentration of the efforts of the troops is determined, not by the creation of powerful groupings and great densities of the forces and weapons of the ground troops, but, primarily, by the quantity and power of the nuclear weapons which can be used in one direction or another and for the performance of the most important tasks.

Finally, in speaking of the selection of the main strike direction, it should be noted that under modern conditions this term is beginning to acquire a highly conditional connotation. It must be realized that in view of the threats of nuclear strikes, the defending enemy will not allow large concentrations of troops in any one definite direction. By maneuvering the strikes of his nuclear weapons, dispersed throughout the entire defense zone, he can quickly intensify the efforts of troops in any direction where the

situation demands it. For these reasons, powerful strike groupings will not be built up in the advancing troops as previously and, indeed, perhaps the necessity for them will disappear since the advance will probably be conducted by small troop groupings in separate and most advantageous directions. In addition, it must be considered that fronts will not now obtain the quantity of troops which they had in the past war. The tasks of operations and of the war will be resolved primarily by nuclear weapons, while the infantry and tanks will be used for the destruction of the remnants of the enemy and for the consolidation of occupied territory.

In connection with all that has been said, the conclusion suggests itself that, under modern conditions, it is more correct to speak not of the selection of the main strike direction but of the determination of the main tasks of an operation toward whose fulfillment the basic efforts of the means of nuclear assault and of the troops should be directed.

Thus, the requirements established by us for the selection of the main strike direction need serious correction. If there is a sufficient quantity of nuclear weapons, these must be used immediately for the destruction of the basic enemy grouping and the main strike by the ground troops must be delivered in this direction; if these means are not available it will be necessary to resort to cunning and deception, to seek out the enemy's weak spots, to maneuver, and to achieve victory by a more difficult and dangerous path. It must be borne in mind that the sensitivity of the troops to strikes along their flanks and rear is not weakened in the least by the fact that they have been armed with nuclear weapons. Therefore, the delivery of a strike against the enemy's weakest spot retains its full significance in all cases when, for some reason, it is not possible to employ nuclear weapons, when they are insufficient or when they are completely lacking. This is especially applicable to the operations of the troops in the depth of the enemy's defense.

The quantity of strikes in a front. As a rule, during operations in World War II, a front, in addition to the main strike, also delivered

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one and, less frequently, two auxiliary strikes. An army practically always delivered one strike. This system for the delivery of strikes by a front and an army is employed, without any changes, in the organization of modern operations. Attempts to deliver a large number of strikes and to disperse the striking groupings somewhat are often seen by us as a dissipation of the efforts of the troops.

It seems to us that, in this question, too, a mechanical transfer of past experience to modern conditions is taking place. When there were no nuclear weapons or missiles, the front was indeed unable to deliver more than two or three strikes since it did not have either the forces or the weapons to do this. Much time was required to maneuver forces and weapons from one direction to another and fire maneuver was limited.

Modern nuclear/missile weapons permit the execution of a maneuver with nuclear strikes along the entire zone of a front and can ensure the destruction of the enemy by advancing troops at any point of his defense. It is therefore entirely possible that, during operations by motorized rifle and tank divisions in separate directions, a front may deliver three, four, and five strikes, coordinated by general concept and directed at the attainment of the goals assigned to the operation. A sufficient quantity of forces and weapons must be assigned to each direction to ensure the fulfillment of the task which has been allotted and to make dense operational and combat formation unnecessary. [Sentence missing] -----
Between adjacent strike groupings and also between separate large units there can be considerable gaps.

Under modern conditions, it is not important how many groupings have been established for an offensive in a front, although this, too, has considerable significance but, primarily, how their advance is organized, where it is directed to, which main tasks are carried out with the aid of nuclear weapons, and how the infantry and tanks are to exploit the results of nuclear strikes in order to advance at maximum speeds. The dispersion of forces

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and weapons throughout the entire zone of the front does not by any means indicate that the efforts of the troops are being dissipated. One must look at the essence of the situation and not at the outward form. And the essence is that, irrespective of the disposition of forces and weapons, the basic efforts of the troops of the front should be directed towards the solution of the main task--the destruction of the enemy's basic grouping. Here it is appropriate to recall the well-known saying "go separately but fight together." Nuclear/missile weapons allow this maxim to be fully realized.

The operational formation of the troops of a front in an offensive operation. In the resolution of this question, too, the changes essential in any comparison with the last period of World War II have not taken place. Powerful, strike groupings of troops, of low mobility, continue to be set up for an offensive. In the process, two echelons are created in a front as a rule and, in addition, a general reserve of several divisions is set up. If one takes into account that armies, divisions, and even regiments can also advance in a two-echelon formation, it turns out that nearly 75 percent of all the forces and weapons of the front will be located in the second echelons and the reserves.

Such a situation was normal and even necessary during the period of World War II since, at that time, commanders and commanding officers had no means for performing subsequent tasks or for the development of the offensive in depth, other than the second echelons and reserves. Furthermore, there were no effective long-range means of destruction which could have threatened the second echelons which, until their commitment to combat or engagement, hardly ever suffered any serious losses.

Things are different in modern operations. The availability of missile weapons makes it possible to provide effective support to the troops with nuclear strikes throughout the entire depth of an operation and to support the development of the offensive in any

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direction. The commanders of the armies and troops of the front can now influence the course of the operation not so much through the second echelons, which will be located at a great distance from the first echelons, as through strikes by nuclear weapons and by strong, highly-mobile and maneuvering reserves.

Front and army reserves must be echeloned in depth, must move in a dispersed fashion and must be used to develop the success of the operation, to relieve divisions which have suffered great losses and have lost their combat efficiency, to repel enemy counterstrike, , and to carry out other unforeseen tasks which may appear in the course of the operation. Here one should remember that, in connection with possible sharp changes in the situation, the replacement of some divisions by others during the course of an operation will take place repeatedly and fairly frequently.

For this reason, and also because of the complexity of control in modern operations, separate large units and units located in the reserve can be directed beforehand to fulfil definite tasks as is now done for second echelons.

Under modern conditions the operational formation of a front or an army should be no less flexible than the combat formation of a regiment or a division, in accordance, of course, with their sizes. This suggests the conclusion that the many-echeloned operational troop formation which we use in offensive operations does not correspond to the changed conditions in the conduct of combat operations and requires serious review. One may agree that, with modern means of destruction, the two-echeloned formation in a regiment and in a division can be to some extent justified. As regards an army and, even more so, a front, however, the creation of second echelons in the old concept is not necessary. Their tasks can be performed most effectively by the more mobile reserves, which are maneuverable, and echeloned in depth.

Coordination (Vzaimodeystviye). The basic principle of coordination -- the synchronization of the efforts of troops in the

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carrying out of tasks concerned with the aim, place and time of an operation-- retains all its significance under modern conditions, but one should include in it another constituent produced by the new means of armed combat and by the changed nature of combat operations.

In each stage of an operation and during the fulfillment of any task, Soviet military art requires that coordination be organized in the interests of those large units and formations which play the main role in the performance of the tasks allotted and in the attainment of the goals of the operation. Previously, in offensive operations by ground troops, coordination was organized most frequently in the interests of the infantry and tanks because they represented the principal means of performing the allotted tasks. Today, this question must be resolved in a different manner, since the principle means of combat are nuclear/missile weapons, and it seems that it will be necessary to arrange coordination in support of the operations of missile large units and units.

It appears to us that support for the fulfillment of the two main tasks should form the basis of coordination in modern operations. The first task is the destruction of the enemy's means of nuclear assault; the troops will be faced with this from the beginning to the end of an offensive operation and also, during the operational lull (if there is one) while the troops are preparing for a new operation. The second task is the timely exploitation by the advancing troops of the results achieved by nuclear strikes, with the aim of completely destroying the enemy. Both these tasks are of paramount significance. The success of an operation depends upon their fulfillment.

In considering the first task, it should be noted that the enemy's means of nuclear assault, located not only in the zone of (a front's) advance but also in the zones of adjacent fronts and beyond their limits, represent a great danger to the front. The destruction of these means must therefore be carried out not only by forces of one front but also by those of adjacent fronts and armies; those enemy means which are out of range must be

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destroyed by the strategic missile troops [a few lines missing]-----
----- With the help of nuclear weapons large losses can be inflicted on opposing enemy groupings and their combat efficiency can be seriously reduced, but it will not always be possible to destroy them completely or to force them to capitulate. First among those who are in a position to perform this task are the ground troops - the infantry and the tanks. It is they who must exploit the results of nuclear strikes and complete the final destruction of the enemy. Therefore, during the arrangement of coordination in the delivery of nuclear strikes, there must be agreement on the place and time of the subsequent operations of the infantry and tanks with a view to the maximum utilization of their combat capabilities. Nuclear weapons must clear the way for the infantry and tanks, while the latter, taking advantage of the results of nuclear strikes, must push forward with determination, break the organized resistance of the remaining enemy forces, and consolidate the territory which has been occupied.

The remaining questions of coordination in an offensive operation must be resolved with regard to and in accordance with the accomplishment of the two basic tasks mentioned above.

In organizing coordination in modern operations, it is also very important to ensure the maximum viability of our own means of nuclear assault, their timely preparation for an operation and an agreed place and time for the delivery of nuclear strikes.

Methods of conducting offensive operations. The experience of many exercises shows that even in the first operations of the initial period of a war, we often envisage the timely concentration of troops in the attack positions, their deployment in combat formation, the carrying out of artillery and air preparation and a subsequent transition to the offensive. Generally, such an opportunity is not to be excluded in a period of threat (ugrozhayemyy period), if there is one, but this will not be typical for troop activities in operations during the initial period of a war, which are conducted with the mass use of nuclear weapons.

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As we have already said, the first and decisive act of a future war will be the mutual delivery of mass nuclear strikes by both sides, with the aim of destroying the means of nuclear assault of the enemy, the disorganization of his deep rear, the destruction of his most important military-economic and administrative-political centers, the creation of complete chaos in the country, the undermining of popular morale and the destruction of the basic groupings of armed forces. . Therefore, the first offensive operations will most probably be initiated by those troops who have escaped the enemy's nuclear strikes, in those directions which have already been determined for them in peacetime.

The transition to the offensive of these troops will not be preceded by artillery or air preparation. These methods of using artillery and aircraft in combat, which were highly recommended during World War II, have already lost their former significance and do not correspond to the modern capabilities of the Armed Forces. It is not these means but nuclear weapons which will now determine the content of the fire preparation for an offensive.

The first offensive operations in a future war will develop simultaneously with or after strikes by the missile troops which will prepare the shortest and most advantageous ways (napravleniye) for the advancing troops to attain the goals assigned to the operation. Only during the course of the offensive in the depth of the enemy's defense can the means of close combat - aircraft, artillery, and small arms - find combat application. The nuclear offensive has replaced the former artillery and air offensive and it will determine the success of the operations.

The main tasks of the advancing troops in the first operations will be, while exploiting the results of nuclear/missile strikes to the full, to complete the destruction of the remaining enemy groupings, to capture the areas where his basic means of armed combat are based, and to paralyze any effort by the enemy to put himself in order or to offer organized resistance. Time and, consequently, the speed of the advance will play a decisive role

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in the fulfillment of this task. He who first seizes the initiative and who acts more quickly and more decisively will be in the better position. For this, according to our estimates, troops should move forward at an average speed of not less than 100 kilometers in every 24 hours. Such speeds can only be guaranteed by troops who are highly trained, mobile, and well provided with a variety of equipment, who are capable of restoring roads and bridges in a limited time and of crossing water obstacles quickly, of operating in zones contaminated by radioactivity, in areas where there are fires and obstructions, and under other difficult conditions. The surprise factor and the destructive power of nuclear/missile strikes make it impossible for the enemy to set up organized defense over any significant area of the front near the border or in the depth of his country. Large gaps and unoccupied sectors of terrain are inevitable in his troop grouping and in his defense system. Even if the enemy were successful in creating such a defense in several directions, it would be completely disrupted by mass nuclear/missile strikes. Under these conditions there is no need to conduct a methodical advance in combat order. Most probably the basic method of troop operations will be an advance by highly maneuverable columns of tanks and of infantry on armored carriers. These columns must move ahead swiftly, going around or overcoming obstacles, barriers, contaminated sectors of the terrain and other obstructions. With tank fire they must quickly destroy the enemy groupings which attempt to offer resistance, and, in cases where this cannot be done, they must search out places which are not occupied by the enemy, break through them and continue to move forward without pause, allocating part of their strength to deliver strikes against the flanks and rear of the defending enemy grouping or leaving large covering detachments (deployed) against it. Sometimes the accomplishment of this task will be left to the echelons and reserves which are following. In order to avoid the loss of high speeds of advance, one should not get involved in prolonged battles, even if the enemy is successful at some point in recapturing the basic directions in the zone of a front or of an army and in organizing their defense. In such a situation, it is better to go round the enemy and to transfer the efforts of the troops immediately to other directions or to withdraw one's own troops to a safe

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distance and to deliver repeated nuclear strikes on the consolidated enemy grouping, exploiting their results to continue the advance.

Aggressive and decisive operations by airborne troops, who are dropped in the enemy's rear and across the route along which he is moving and, especially, while troops are negotiating zones which are contaminated by radioactivity or wide water barriers, are acquiring great scope and increasing significance in offensive operations. / Several words missing / -----high speeds of movement of the advancing troops and their performance of tasks aimed at the final destruction of the enemy.

In the course of offensive operations, the most varied types of combat operations are possible: in some directions troops will move forward swiftly, meeting no serious enemy resistance, or will perform a turning maneuver; in others large head-on collisions may develop or the troops may be compelled to conduct defensive operations, to contain an offensive by superior enemy forces and to repulse strikes by his airborne troops; in still other directions, the troops may overcome the enemy's defense or may withdraw in order to make possible the delivery of repeated nuclear/missile strikes on the enemy. Very frequently, troops will have to negotiate contaminated sectors of terrain with high levels of radiation, obstructions, and other obstacles which are created by nuclear strikes. As a result of such operations, the front line, as it used to be understood, will disappear. Front and army engagements will develop across vast areas along the front and in depth and will become separate centers, areas and zones of combat operations of the most varied scope and nature. The driving of deep mutual wedges (vzaimnoye vklineniye) by the troops will become a general phenomenon. Our troops may find themselves deep in the enemy's rear and his troops will conduct aggressive combat operations in the rear of ours.

Although the troops will have to conduct such a variety of combat operations in the course of an offensive, the basis of all

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these operations must be wide maneuver, founded on the use of a mobile/combat (pokhodnoboeyevoy) order, i. e., coupling a swift forward movement in small columns with operations in combat formations when this is demanded by the situation. When nuclear weapons are being used, such a method of operations can provide the best assurance of a high rate of advance and of the performance of tactical and operational tasks in significantly shorter periods of time than was possible with earlier means of armed combat. As a result of this, the duration of offensive operations can be greatly shortened despite their increased depth.

This, in general terms, is how we see the methods of conducting an offensive in the operations during the initial period of a war.

We have very briefly surveyed separate questions of offensive operations in order to show the disparity which exists in a number of cases between the methods of troop operations in modern operations and the combat capabilities of the new means of armed combat. Such disparity can be found in a number of other questions of military art.

Of course, our reasoning cannot pretend to represent any degree of exhaustive argument. The questions which we have touched upon, like many other questions of modern military art, require profound and complete study and research, and practical testing on "battle" training grounds. A fraction of this study is represented by the attempt of this article to provide a critical analysis of the nature of the operation of one of the most important laws of development in military art - the law of the interconnection and interdependence of means and weapons of armed combat - and to show the fulfillment of the requirements of this law in our resolution of the questions of the preparation and conduct of modern operations.